IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Joshua Susser, Mitchel B. Butler and Andy Streich		
Assignee:	Sun Microsystems, Inc.		
Title:	TECHNIQUES FOR PERMITTING ACCESS ACROSS A CONTEXT BARRIER ON A SMALL FOOTPRINT DEVICE USING AN ENTRY POINT OBJECT		
Serial No.:	10/659,554	Filed:	September 9, 2003
Examiner:	Piotr Poltorak	Group Art Unit:	2434
Docket No.:	P-3709CNT		

Monterey, CA
April 1, 2009

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S BRIEF

Dear Sir:

Pursuant to 37 CFR § 41.37(a) (1), Appellant files this Appellant's Brief in support of the Notice of Appeal entered by the USPTO on February 2, 2009.

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REAL PARTY IN INTEREST

The assignee of the above-referenced patent application, Sun Microsystems, Inc., is the real party in interest.

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RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known to the undersigned Attorney for Appellant, or the Assignee Appellant, which will directly affect, or be directly affected by, or have a bearing on the Board's decision in this pending Appeal.

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STATUS OF CLAIMS

Claims 30 to 51, 53 and 57 are pending. Claims 1 to 29, 52 and 54 to 56 have been cancelled. Claims 30 to 51, 53 and 57 stand rejected in the Final Office Action of March 27, 2008. The rejections of Claims 30 to 51, 53 and 57 are hereby appealed.

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STATUS OF AMENDMENTS

All amendments to the claims presented by Appellant have been entered.

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SUMMARY OF CLAIMED SUBJECT MATTER

A summary is provided below for each independent claim and for each dependent claim argued separately.

CLAIM 30

A small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} includes at least one processing element {300 (Fig. 3)}, on the small footprint device, configured to execute groups of one or more program modules {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14} in separate contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}. The separate contexts are included in a runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} on the small footprint device. The runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} includes an operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}. The separate contexts {760, 770 (Figs. 7 and 12)} are removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23} on the small footprint device.

The one or more program modules include zero or more sets of executable instructions and zero or more sets of data definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. The zero or more sets of executable instructions and the zero or more data definitions are grouped as object definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. Each context {760, 770 (Figs. 7 and 12)} includes a protected object instance space such that at least one {1200, 1210 (Fig. 12); pg 24, lines 16 to 20} of the object definitions is instantiated in association with a particular context. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

A memory {310, (Fig. 3)}, on the small footprint device, includes instances of objects {1200, 1210 (Fig. 12); pg 24,

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lines 16 to 20}. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

A context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7}, in the runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} and removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23} separates and isolates the contexts {Pg. 18, lines 7 to 18}. The context barrier is configured for controlling execution of at least one instruction of one of the zero or more sets of instructions comprised by a program module {See Figs. 8, 9 and 12; pg 20, lines 12 to 23} based at least in part on whether the at least one instruction is executed for an object instance {635, (Fig 6); See also, 800, (Fig. 8); pg. 20, lines 14 and 15} associated with a first one {420, (Fig. 6)} of the separate contexts {420, 620 (Fig. 6); See also 810, (Fig. 8); pg. 20, lines 14 and 15} and whether the at least one instruction is requesting access to an instance {640, (Fig. 6)} of an object definition associated with a second one {620, (Fig. 6)} of the separate contexts. The context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} further is configured to prevent the access if the access is unauthorized {840, (Fig. 8); pg. 20, line 17} and enable the access if the access is authorized {830, (Fig. 8); pg. 20, line 18}.

An entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2}, in the runtime environment and removed from and over the operating system, for permitting one program module {1200, (Fig. 12); pg. 24, lines 16 to 18} in one {770, (Fig. 12); pg. 24, lines 16 to 18} of the separate contexts, to directly access information from another program module in another{760, (Fig. 12); pg. 24, lines 16 to 18} of the separate contexts, across the context barrier {600, (Fig. 12)}.

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CLAIM 43

A method of operating a small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} that includes a processing machine {300 (Fig. 3)}. Program modules are executed on the processing machine.

The method includes separating contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}, on the small footprint device, using a context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7}. The context barrier is configured for controlling execution of at least one instruction of one of the zero or more sets of instructions comprised by a program module {See Figs. 8, 9 and 12; pg 20, lines 12 to 23} based at least in part on whether the at least one instruction is executed for an object instance {635, (Fig 6); See also, 800, (Fig. 8); pg. 20, lines 14 and 15} associated with a first one {420, (Fig. 6)} of the separate contexts {420, 620 (Fig. 6); See also 810, (Fig. 8); pg. 20, lines 14 and 15} and whether the at least one instruction is requesting access to an instance {640, (Fig. 6)} of an object definition associated with a second one {620, (Fig. 6)} of the separate contexts.

The separate contexts {760, 770 (Figs. 7 and 12)} and the context barrier are included in a runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} on the small footprint device. The runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} includes an operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}. The separate contexts {760, 770 (Figs. 7 and 12)} and the context barrier are removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}. The separating includes preventing the access if the access is unauthorized {840, (Fig. 8); pg. 20, line 17}; and enabling the access if the access is authorized {830, (Fig. 8); pg. 20, line 18}.

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The method also includes executing groups of one or more program modules {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14} in separate contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}. The one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. The zero or more sets of executable instructions and the zero or more data definitions grouped as object definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. Each context {760, 770 (Figs. 7 and 12)} includes a protected object instance space such that at least one {1200, 1210 (Fig. 12); pg 24, lines 16 to 20} of the object definitions is instantiated in association with a particular context. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}.

The method further includes permitting direct access to information from one program module, in one {760, (Fig. 12); pg. 24, lines 16 to 18} of the separate contexts, by another program module, in another {770, (Fig. 12); pg. 24, lines 16 to 18} of the separate contexts, across the context barrier {600, (Fig. 12)} using an entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2} wherein the entry point object is in the runtime environment and is removed from and over the operating system.

CLAIM 47

A method of permitting access to information on a small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} from a first program module to a second program module separated by a context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7}. The small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} includes at least one processing element {300 (Fig. 3)}, on the small footprint device, configured to execute groups of one

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or more program modules {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14} in separate contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}.

The one or more program modules include zero or more sets of executable instructions and zero or more sets of data definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. The zero or more sets of executable instructions and the zero or more data definitions are grouped as object definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. Each context {760, 770 (Figs. 7 and 12)} includes a protected object instance space such that at least one {1200, 1210 (Fig. 12); pg 24, lines 16 to 20} of the object definitions is instantiated in association with a particular context. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

The separate contexts are included in a runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} on the small footprint device. The runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} includes an operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}. The separate contexts {760, 770 (Figs. 7 and 12)} are removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}.

A memory {310, (Fig. 3)}, on the small footprint device, includes instances of objects {1200, 1210 (Fig. 12); pg 24, lines 16 to 20}. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

A context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7}, in the runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} and removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23} separates and isolates the contexts {Pg. 18, lines 7 to 18}. The context barrier is configured for controlling execution of at least one instruction of one of the zero or more sets of instructions comprised by a program module {See Figs. 8, 9 and 12; pg 20, lines 12 to 23} based at least

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in part on whether the at least one instruction is executed for an object instance {635, (Fig 6); See also, 800, (Fig. 8); pg. 20, lines 14 and 15} associated with a first one {420, (Fig. 6)} of the separate contexts {420, 620 (Fig. 6); See also 810, (Fig. 8); pg. 20, lines 14 and 15} and whether the at least one instruction is requesting access to an instance {640, (Fig. 6)} of an object definition associated with a second one {620, (Fig. 6)} of the separate contexts. The context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} further is configured to prevent the access if the access is unauthorized {840, (Fig. 8); pg. 20, line 17} and enable the access if the access is authorized {830, (Fig. 8); pg. 20, line 18}.

The method includes creating an entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2}, in the runtime environment and removed from and over the operating system, which may be accessed by at least two program modules. The method includes using the entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2} to permit direct access to information of one program module of the at least two program modules in one {760, (Fig. 12); pg. 24, lines 16 to 18} of the separate contexts, by an other {1200, (Fig. 12)} of the at least two program modules in another {770, (Fig. 12); pg. 24, lines 16 to 18} of the separate contexts, across the context barrier {600, (Fig. 12)}.

CLAIM 51

A computer program product includes a memory storage medium and a computer controlling element. The computer controlling element includes instructions for implementing a context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} on a small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} and for bypassing

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the context barrier {600, (Figs 6 and 12)} using an entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2} to permit direct access to information from one program module, in one context {760, (Fig. 12); pg. 24, lines 16 to 18}, by another program module, in a different separate context {770, (Fig. 12); pg. 24, lines 16 to 18}. The context barrier and the entry point object are included in a runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} on the small footprint device. The runtime environment includes an operating system {710, (Fig. 7); Pg. 18, lines 22 to 23} where the context barrier and the entry point are removed from and over the operating system.

The small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} includes at least one processing element {300 (Fig. 3)}, on the small footprint device, configured to execute groups of one or more program modules {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14} in separate contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}. The one or more program modules include zero or more sets of executable instructions and zero or more sets of data definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. The zero or more sets of executable instructions and the zero or more data definitions are grouped as object definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}.

Each context {760, 770 (Figs. 7 and 12)} includes a protected object instance space such that at least one {1200, 1210 (Fig. 12); pg 24, lines 16 to 20} of the object definitions is instantiated in association with a particular context. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.} The separate contexts {760, 770 (Figs. 7 and 12)} are included in the runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} and are removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}.

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A memory {310, (Fig. 3)}, on the small footprint device, includes instances of objects {1200, 1210 (Fig. 12); pg 24, lines 16 to 20}. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

A context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} separates and isolates the contexts {Pg. 18, lines 7 to 18}. The context barrier is configured for controlling execution of at least one instruction of one of the zero or more sets of instructions comprised by a program module {See Figs. 8, 9 and 12; pg 20, lines 12 to 23} based at least in part on whether the at least one instruction is executed for an object instance {635, (Fig 6); See also, 800, (Fig. 8); pg. 20, lines 14 and 15} associated with a first one {420, (Fig. 6)} of the separate contexts {420, 620 (Fig. 6); See also 810, (Fig. 8); pg. 20, lines 14 and 15} and whether the at least one instruction is requesting access to an instance {640, (Fig. 6)} of an object definition associated with a second one {620, (Fig. 6)} of the separate contexts. The context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} further is configured to prevent the access if the access is unauthorized {840, (Fig. 8); pg. 20, line 17} and enable the access if the access is authorized {830, (Fig. 8); pg. 20, line 18}.

CLAIM 53

A computer program product includes a memory storage medium and a computer controlling element. The computer controlling element includes instructions for separating a plurality of programs on a small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} by running them in respective contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)} and for permitting one program to access information from

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another program by bypassing a context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} using an entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2} to permit direct access to information from one program, in one context {760, (Fig. 12); pg. 24, lines 16 to 18}, by another program in a different separate context {770, (Fig. 12); pg. 24, lines 16 to 18}. The context barrier and the entry point object are included in a runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} on the small footprint device. The runtime environment includes an operating system {710, (Fig. 7); Pg. 18, lines 22 to 23} where the context barrier and the entry point are removed from and over the operating system.

The small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} includes at least one processing element {300 (Fig. 3)}, on the small footprint device, configured to execute groups of one or more program modules {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14} in separate contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}. The one or more program modules include zero or more sets of executable instructions and zero or more sets of data definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. The zero or more sets of executable instructions and the zero or more data definitions are grouped as object definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. Each context {760, 770 (Figs. 7 and 12)} includes a protected object instance space such that at least one {1200, 1210 (Fig. 12); pg 24, lines 16 to 20} of the object definitions is instantiated in association with a particular context. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.} The separate contexts {760, 770 (Figs. 7 and 12)} are included in the runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22} and are removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}.

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A memory {310, (Fig. 3)}, on the small footprint device, includes instances of objects {1200, 1210 (Fig. 12); pg 24, lines 16 to 20}. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

A context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} separates and isolates the contexts {Pg. 18, lines 7 to 18}. The context barrier is configured for controlling execution of at least one instruction of one of the zero or more sets of instructions comprised by a program module {See Figs. 8, 9 and 12; pg 20, lines 12 to 23} based at least in part on whether the at least one instruction is executed for an object instance {635, (Fig 6); See also, 800, (Fig. 8); pg. 20, lines 14 and 15} associated with a first one {420, (Fig. 6)} of the separate contexts {420, 620 (Fig. 6); See also 810, (Fig. 8); pg. 20, lines 14 and 15} and whether the at least one instruction is requesting access to an instance {640, (Fig. 6)} of an object definition associated with a second one {620, (Fig. 6)} of the separate contexts. The context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} further is configured to prevent the access if the access is unauthorized {840, (Fig. 8); pg. 20, line 17} and enable the access if the access is authorized {830, (Fig. 8); pg. 20, line 18}.

CLAIM 57

A method of transmitting code over a network {200, (Fig. 2)} includes transmitting a block of code from a server {210, (Fig. 2)}. The block of code comprising instructions for implementing an entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2} for bypassing a context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} on a small footprint device {Pg. 3, lines

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21 to 23; Pg. 28, lines 16 to 18} over a communications link. The context barrier and the entry point object are included in a runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22}. The runtime environment includes an operating system {710, (Fig. 7); Pg. 18, lines 22 to 23} where the context barrier and the entry point are removed from and over the operating system. The entry point object {1210, (Fig. 12); pg. 24, line 20 to pg. 25, line 2} permits direct access to information from one program module, in one context {760, (Fig. 12); pg. 24, lines 16 to 18}, by another program module in another different context {770, (Fig. 12); pg. 24, lines 16 to 18}.

The small footprint device {Pg. 3, lines 21 to 23; Pg. 28, lines 16 to 18} includes at least one processing element {300 (Fig. 3)}, on the small footprint device, configured to execute groups of one or more program modules {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14} in separate contexts {760, 770 (Figs. 7 and 12); See also, 420, 620, (Fig. 6)}. The one or more program modules include zero or more sets of executable instructions and zero or more sets of data definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. The zero or more sets of executable instructions and the zero or more data definitions are grouped as object definitions {Pg. 5, lines 6 to 16; pg. 9, lines 9 to 14}. Each context {760, 770 (Figs. 7 and 12)} includes a protected object instance space such that at least one {1200, 1210 (Fig. 12); pg 24, lines 16 to 20} of the object definitions is instantiated in association with a particular context. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.} The separate contexts {760, 770 (Figs. 7 and 12)} are included in the runtime environment {700, (Fig. 7); Pg. 18, lines 19 to 22}, on the small footprint device, and are removed from and over the operating system {710, (Fig. 7); Pg. 18, lines 22 to 23}.

A memory {310, (Fig. 3)}, on the small footprint device, includes instances of objects {1200, 1210 (Fig. 12); pg 24,

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lines 16 to 20}. {See also, Fig. 6, contexts 420, 620; objects 440, 640; Pg. 18, lines 7 to 18.}

A context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} separates and isolates the contexts {Pg. 18, lines 7 to 18}. The context barrier is configured for controlling execution of at least one instruction of one of the zero or more sets of instructions comprised by a program module {See Figs. 8, 9 and 12; pg 20, lines 12 to 23} based at least in part on whether the at least one instruction is executed for an object instance {635, (Fig 6); See also, 800, (Fig. 8); pg. 20, lines 14 and 15} associated with a first one {420, (Fig. 6)} of the separate contexts {420, 620 (Fig. 6); See also 810, (Fig. 8); pg. 20, lines 14 and 15} and whether the at least one instruction is requesting access to an instance {640, (Fig. 6)} of an object definition associated with a second one {620, (Fig. 6)} of the separate contexts. The context barrier {600, (Figs 6 and 12); pg. 18, lines 7 to 18; See also "Firewall" in Fig. 7} further is configured to prevent the access if the access is unauthorized {840, (Fig. 8); pg. 20, line 17} and enable the access if the access is authorized {830, (Fig. 8); pg. 20, line 18}.

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GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether Claims 30 to 51, 53 and 57 are unpatentable under 35 U.S.C. 102(a) as being anticipated by WIPO Patent Publication No. WO 98/32073, hereinafter referred to as Bischof?

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ARGUMENT

CLAIMS 30 to 51, 53 and 57 ARE PATENTABLE FOR MULTIPLE REASONS.

The rejection of Claims 30 to 51, 53, and 57 under 35 U.S.C. § 102(a) as being anticipated by WIPO Patent Publication No. WO 98/32073, hereinafter referred to as Bischof, is in error for multiple reasons and should be withdrawn.

As demonstrated more completely below, the rejection reduces claim limitations to a gist—a form of analysis that is impermissible for an obviousness rejection and so cannot be part of an anticipation rejection. Also, the rejection takes pieces of Bischof out of context and then mixes and matches different parts of Bischof, which also is inappropriate in an obviousness rejection and so cannot form the basis for an anticipation rejection.

The MPEP's summary of the court decisions on anticipation indicates that at least two showings are mandatory for an anticipation rejection, i.e.,

> **TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM**
>
> . . . ."The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

MPEP § 2131, 8 Ed., Rev. 6, p. 2100-67 (Sept. 2007). Thus, not only must Bischof teach the elements as arranged by the claims, but also Bischof must teach the identical invention in as complete detail as recited in the claims. Bischof fails to meet these requirements.

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THE PLAIN MEAING OF THE CLAIMS

Claim 30 is used as an example. Each of the other independent claims includes equivalent or similar limitations. Claim 30 defines in detail a "context barrier . . . for separating and isolating contexts." (CLAIMS APPENDIX, Claim 30, lines 24 to 26, pg. 31.) The contexts separated and isolated by the context barrier, are defined in the claim as including "a protected object instance space," (CLAIMS APPENDIX, Claim 30, lines 18 to 19, pg. 31.) and the protected object instance space includes at least one object instance, e.g., "at least one of said object definitions is instantiated in association with a particular context." (CLAIMS APPENDIX, Claim 30, lines 19 to 21, pg. 31.) The claim also defines the actions taken by the context barrier when an object instance in one context attempts to access information of another object instance in a different context. (CLAIMS APPENDIX, Claim 30, lines 26 to 37, pgs. 31, 32.) Thus, the claim language itself defines with specificity the context barrier, the contexts associated with the context barrier, and objects associated with a context.

The claim also recites an entry point object (CLAIMS APPENDIX, Claim 30, line 38, pg. 32.) and specifies that the entry point object allows bypassing the recited operation of the context barrier by permitting a program module in one of the contexts to directly access information in a different context where the two contexts are separated by the context barrier. (CLAIMS APPENDIX, Claim 30, lines 38 to 43, pg. 32.)

The above interpretation of Claim 30 follows directly from the plain meaning of the claim and relies upon only the claim language itself. The MPEP requires that "words of the claim **must** be given their plain meaning unless the plain meaning is

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inconsistent with the specification." MPEP § 2111.01, I., 8th Ed. Rev. 6, p 2100-38 (September 2007).

THE REJECTION MISCHARACTERIZES AT LEAST A CONTEXT BARRIER, CONTEXTS, AND AN ENTRY POINT

The rejection confuses the express relationship of the elements recited in these claims and mischaracterizes Bischof. The rejection fails to consistently use terminology. Specifically, after the rejection equates an element of Bischof to an element in the claim, the rejection fails to demonstrate that Bischof teaches the limitations with respect to that element of Bischof in the same level of detail and arranged as recited in the claim.

For example, the rejection first stated:

> As per claims 30, 43, 47, 51,53, and 57, Bischof discloses the creation and use of guard objects (context barriers) for processing invocations of a context's entry point (see p. 5, lines 26-28) before those contexts are instantiated in response to object requests (see p. 10, lines 10-33).

Final Office Action, dated 10/27/2008, Section 5, lines 3 to 6, pg 3.

The rejection equates the guard objects of Bischof to plural context barriers and not the single context barrier recited in these claims. To satisfy the MPEP requirements for an anticipation rejection, the rejection must demonstrate that Bischof teaches a guard object that includes each of the limitations associated with context barrier as recited in the claims.

The rejection fails to do this and instead the remainder of this paragraph of the rejection (Final Office Action, dated 10/27/2008, Section 5, lines 6 to 13, pg. 3) makes statements about contexts, which (i) are not supported by the citations in this part of the rejection, and (ii) are not related to the

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guard objects as taught by Bischof. The rejection not only reduces the express claim limitations to a gist, but also the rejection uses terminology and interpretations that are not supported by Bischof while apparently ignoring the express definitions and statements of Bischof.

Specifically, the rejection ignores the explicit recitation of the limitations recited in the claims with respect to a single context barrier and the contexts associated with that single context barrier. First as noted above, the contexts include object instances, which have been instantiated, and the single context barrier separates and isolates these different contexts.

Bischof defines an object instance at Pg. 7, lines 7 to 9. Thus, the rejection must cite to some teaching of a context that includes the objects as defined by Bischof and then a context barrier that separates such contexts to demonstrate that Bischof meets the "in the same detail" requirement for the anticipation rejection. The rejection does not do this.

Rather the rejection makes a statement about guard rings being plural context barriers and then, as quoted above, cites to a definition of a sandbox (Bischof, pg. 5, lines 26-26) and the description of an interception manager (Bischof, pg. 10, lines 10 to 33.) The only teaching in these portions about a guard object is:

> . . .To control access alone may not be sufficient in some cases and it may be necessary to monitor or to audit resource usage. This demands a further component of the security mechanism to be invoked before and/or after the protected resource is used. Such an object is called a guard which can be inserted by the interception manager.

Bischof, pg. 10, lines 29 to 33.

Thus, the sections cited in the rejection define a sandbox and an interception manager. As part of the interception manager description, Bischof provides an overview of the

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operation of a guard ring. Such a description fails to demonstrate that a guard object, which the rejection, as quoted above, equated to the context barrier, included the limitations recited in the claims with respect to the context barrier. This is direct evidence that Appellant's claim language and not any teaching in Bischof is the basis for the rejection.

A GUARD OBJECT IS NOT A CONTEXT BARRIER AS RECITED IN THE CLAIMS.

Bischof expressly teaches that a guard object is associated with an object reference. Bischof, Pg. 8, at lines 7 to 9. "An *object reference* is a pointer to a location of a method of an entity." Bischof, Pg. 7, line 17. Thus according to Bischof, a guard object is associated with a pointer.

Bischof at page 11, lines 15 to 32 described the function of the guard object and does not describe a guard object as separating and isolating contexts as recited in the claims, but rather the guard object controls operations associated with the method at the location of the object reference. Accordingly, the characterization in the rejection of a guard ring that is associated with separating contexts is unsupported by Bischof. Also, as demonstrated above, the statement about contexts in the rejection has nothing to do with what Bischof describes as being associated with a guard object. Bischof fails to teach or suggest a context barrier and the contexts as recited in these claims and so Bischof fails to anticipate or render obvious these claims. These facts alone are sufficient to overcome the anticipation rejection.

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THE REJECTION ADMITS THAT THE GUARD RING FAILS TO TEACH A CONTEXT AS RECITED IN THE CLAIMS

The rejection admits that the guard object of Bischof fails to teach the context barrier in the same level of detail as recited in the claim by first stating that the guard object processes "invocations of a context's entry point . . . before those contexts are instantiated." (Final Office Action, dated 10/27/2008, Section 5, lines 4 and 5, pg. 3). Following the rationale of the rejection, if a context is not instantiated, it is not possible for an object instance to exist within that context. Accordingly, the rejection on its face admits that the context cannot include an instance of an object as recited in these claims. Therefore, the guard object, as interpreted in the rejection, fails to teach the context barrier in the same level of detail as recited in the claims for yet other reasons.

THE REJECTION IGNORES THE RELATIONSHIP BETWEEN THE ENTRY POINT, CONTEXTS, AND THE CONTEXT BARRIER AS RECITED IN THE CLAIMS

As discussed above, the rejection takes the guard rings of Bischof as context barriers. Using this definition to demonstrate that Bischof reads on an entry point object as recited in the claims, the rejection must cite some teaching of an object instance in one context accessing information of another object instance directly and in the process bypassing the guard ring. The rejection fails to do this.

Rather, the rejection stated:

> Also, a gate in a java sandbox equates to an entry points object for direct access to information (see pg. 5 lines 26-27). Note, that the sandbox is "a playground to which Java applets are confined and applets execution environment is delineated by borders with defined gates

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> (entry and exit points)". Thus, a gate taught by Bishof [Sic], permits direct access to information from one program module of at least two program modules, in one of separate context, by another program module of said at least two program modules, in another of said separate context, across context barrier.

Final Office Action, dated 10/27/2008, Last paragraph of Section 5 bridging Pgs. 3 and 4.

The advisory action attempts to support this rationale by stating:

> Furthermore, it appears that applicant overlooked the architecture of Bishop's [Sic] invention, in particular the fact that "sandbox" is an abstract concept employing various mechanisms to provide security of objects in the runtime environment. .

Advisory Action, dated 01/09/2009 at pg. 2.

The rejection confuses access of information in and out of the sandbox with accessing information in different contexts separated by a context barrier as recited in the claims. The rejection has failed to show any teaching of a guard ring that prevents access between an object in a context in the sandbox and an object in a context outside the sandbox, which would be at least one required showing to demonstrate that a guard ring teaches exactly the context barrier.

The concept of a gate teaches away from such an interpretation of a guard ring, because Bischof taught that a gate and not any guard ring controlled access into and out of the sandbox. The rejection has failed to cite any teaching of Bischof about such a gate bypassing a guard ring. Thus, the rejection is inconsistent and has failed to demonstrate that Bischof anticipates the claims.

Appellant has demonstrated that the rejection makes characterizations and generalizations that are not supported by any citation to Bischof. Accordingly, the rejection not only mischaracterizes both the claim language and Bischof, but also

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the rejection failed to show that Bischof teaches the same elements arranged as required by the express claim language. This is further evidence that a prima facie anticipation rejection has not been made. Appellant again notes that any one of the showings is sufficient to overcome the anticipation rejection.

THE REJECTION FAILED TO DEMONSTRATE THAT BISCHOF TEACHES A SMALL FOOTPRINT DEVICE AS RECITED IN THE CLAIMS .

As just stated, any one of the above showings alone is sufficient to overcome the anticipation rejection. However, to avoid waiving the other errors in the rejection, Appellant notes that the rejection demonstrates that Bischof fails to teach a small footprint device as recited in the claims. The rejection stated:

> Additionally, as per newly introduced limitations a particular entity (e.g. as disclosed in Fig. 1) implementing Bishof's [Sic] security mechanism to protect its resources equates to a small footprint device.

Final Office Action, dated 10/27/2008, Section 5, lines 14 to 16, Pg. 3.

In interpreting this part of the rejection, the advisory action stated:

> Clearly, Bishofs [Sic] invention requires at least memory and processing element (e.g. CPU) in order for the security mechanism disclosed by Bishof [Sic] to work, and an entity offering these elements (or, in other words, in which the Bishofs [Sic] security mechanism is implemented) was equated by the examiner to a small footprint device.

Advisory Action, dated 01/09/2009 at pg. 2.

Appellant notes that the rejection, which relies upon Fig. 1 of Bischof, and the rationale in the Advisory Action use "entity" in a different way. The rejection reduces a small

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footprint device to any device that includes a memory and a processing element.

The rejection, as quoted above, relies upon Fig. 1 of Bischof as defining what an entity is, but then in the advisory action stated an entity offering at least memory and processing element is equated to a small footprint device. This is error for multiple reasons.

First, the entity in Fig. 1 of Bischof does not teach the memory and the processing element as recited in the claims. Second, the rejection has cited no teaching of any small footprint device in Bischof and so must rely upon inherency. Third, the rejection reduces the claim limitation to a gist and ignores explicit claim limitations.

The final rejection equates an entity as disclosed in Fig. 1 of Bischof to a specific physical device, a small footprint device, as recited in these claims. This is error and ignores the specific definition of an entity according to Bischof. Bischof defined:

> *Entities* are considered as objects or referenced classes, ... (Emphasis in original)

Bischof, pg. 7, lines 11, 12.

Bischof also defined an object as:

> *Objects* encapsulate data and provide methods . . .Objects are created dynamically, that is, they are instantiated. (Emphasis in original)

Bischof, pg. 7, lines 7 to 9. Similarly, Bischof defined a class as:

> *Classes* are definitions for objects and are static. (Emphasis in original)

Bischof, pg. 7, line 10. Thus, an entity, which is a referenced class, is not a physical device such as a small

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footprint device including at least one processing element, a memory, and the other features recited in these claims. Thus, Fig. 1 and the description thereof cannot support the rejection.

When Bischof does use an "entity" to mean a physical device, the teaching does not support the statements in the rejection. First, Bischof describes an open digital communication system that includes "physically and organizationally distributed independent entities." (Bischof, pg. 1, lines 8 and 9.) An example of such a system according to Bischof is "the Internet with it distributed processing stations, servers and end-user computers, which provide and own the resources, e.g. data and program files." (Bischof, pg. 1, lines 13 and 14.) Bischof further defines "Resources to be protected . . . are usually owned or provided by entities, e.g., servers or other processing stations." (Bischof, pg. 3, lines 23, 24.)

Thus, Bischof teaches that the physical entities are servers and other processing stations in a distributed network. The rejection ignores this teaching and apparently tries to rely upon inherency to assert that the system of Bischof, despite the teachings of Bischof, could be implemented on a small footprint device. Appellant notes that while a system implemented on a small footprint device may be able to be implemented on a server or a desk top computer, (Specification, pg. 29, lines 5 to 11), there is no showing in the rejection that Bischof teaches that the converse is true.

Accordingly, Bischof cannot support an inherency rejection. The MPEP directs:

> Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

MPEP § 2112 IV., 8 Ed., Rev. 6, p. 2100-47 (Sept. 2007).

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The possibility that Bischof, who failed to acknowledge a runtime environment suitable for use on a small footprint device, could be implemented on a small footprint device is not sufficient to rely upon inherency.

Bischof is concerned with accessing resources over a distributed network, such as the Internet, and the rejection has failed to cite any teaching in Bischof of any need or desire to access a resource on a small footprint device. (See Bischof, Abstract.) Accordingly, there is not even a fact that a certain thing may result from the definition of an entity to support any conclusion about a small footprint device. Consequently, Bischof fails to even suggest such a small footprint device.

Moreover, while the Examiner can interpret the claim language broadly, the MPEP puts limitations on the breadth of claim interpretation that can be used during examination. In particular, "During patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification.'" MPEP § 2111, 8th Ed. Rev. 6, p 2100-37 (August 2007). One limitation on the broadest reasonable interpretation by the MPEP is "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." MPEP § 2106 C., 8th Ed. Rev. 6, p 2100-7 (September 2007).

The specification defines:

> Devices with a small footprint are generally considered to be those that are restricted or limited in memory or in computing power or speed.

Specification, pg. 28, lines 16 to 18. Also,

> In general, small footprint devices are resource constrained computational device and systems where secure interoperation of execution contexts is a concern.

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Specification, pg. 28, lines 23 to 24.

Accordingly, the interpretation in the rejection not only failed to consider these explicit definitions, but also relied upon an improper application of inherency. The incorrect characterization of a small footprint device alone is sufficient to overcome the anticipation rejection because it demonstrates that Bischof failed to describe the invention in the same level of detail and failed to describe the elements arranged as recited in these claims.

Thus, each of Claims 30, 43, 47, 51, 53, and 57 distinguish over Bischof for multiple reasons. Appellant respectfully requests reconsideration and withdrawal of the anticipation rejection of each of Claims 30, 43, 47, 51, 53, and 57.

Claims 31 to 42 depend from Claim 30 and so distinguish over Bischof for at least the same reasons as Claim 30. Appellant respectfully requests reconsideration and withdrawal of the anticipation rejection of each of Claims 31 to 42.

Claims 44 to 46 depend from Claim 43 and so distinguish over Bischof for at least the same reasons as Claim 43. Appellant respectfully requests reconsideration and withdrawal of the anticipation rejection of each of Claims 44 to 46.

Claims 48 to 50 depend from Claim 47 and so distinguish over Bischof for at least the same reasons as Claim 47. Appellant respectfully requests reconsideration and withdrawal of the anticipation rejection of each of Claims 48 to 50.

CONCLUSION

For the reasons above, all appealed claims, i.e., Claims 30 to 51, 53 and 57, are allowable. Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the Examiner's rejections under U.S.C. § 102(a) of these claims.

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CLAIMS APPENDIX

1. - 29. (Cancelled)

30. (Previously Presented) A small footprint device comprising:

at least one processing element, on said small footprint device, configured to execute groups of one or more program modules in separate contexts, wherein said separate contexts are included in a runtime environment on said small footprint device, and further wherein said runtime environment includes an operating system where said separate contexts are removed from and over said operating system on said small footprint device,

wherein said one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions,

said zero or more sets of executable instructions and said zero or more data definitions grouped as object definitions, and

each context comprising a protected object instance space such that at least one of said object definitions is instantiated in association with a particular context;

a memory, on the small footprint device, comprising instances of objects;

a context barrier, in said runtime environment and removed from and over said operating system, for separating and isolating said contexts, said context barrier configured for controlling execution of at least one instruction of one of said zero or more sets of

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instructions comprised by a program module based at least in part on whether said at least one instruction is executed for an object instance associated with a first one of said separate contexts and whether said at least one instruction is requesting access to an instance of an object definition associated with a second one of said separate contexts, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized; and

an entry point object, in said runtime environment and removed from and over said operating system, for permitting one program module, in one of said separate contexts, to directly access information from another program module, in another of said separate contexts, across said context barrier.

31. (Previously Presented) The small footprint device of claim 30 in which said context barrier allocates separate name spaces for each program module.

32. (Previously Presented) The small footprint device of claim 30 in which at least two program modules can access said entry point object even though they are located in different respective name spaces.

33. (Previously Presented) The small footprint device of claim 30 in which said context barrier allocates separate memory spaces for each program module.

34. (Previously Presented) The small footprint device of claim 33 in which at least two program modules can access said entry point object even though they are located in different respective memory spaces.

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35. (Previously Presented) The small footprint device of claim 30 in which said context barrier enforces security checks on at least one of a principal, an object, and an action.

36. (Previously Presented) The small footprint device of claim 35 in which at least one security check is based on partial name agreement between a principal, and an object.

37. (Previously Presented) The small footprint device of claim 36 in which at least one program can access said entry point object without said at least one security check.

38. (Previously Presented) The small footprint device of claim 35 in which at least one security check is based on memory space agreement between a principal and an object.

39. (Previously Presented) The small footprint device of claim 38 in which at least one program can access said entry point object without said at least one security check.

40. (Previously Presented) The small footprint device of claim 30 wherein an object instance is associated with a context by recording the name of said context in a header of said object instance, information in said header inaccessible to said one or more program modules.

41. (Previously Presented) The small footprint device of claim 30 wherein

said memory comprises object header data, said object header data comprising information associated with at least one of said instances of objects; and

said controlling execution is based at least in part on said object header data.

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42. (Previously Presented) The small footprint device of claim 30 wherein

said memory is partitioned into a plurality of memory spaces with instances of objects allocated for storage in one of said plurality of storage spaces; and

said controlling execution is based at least in part on determining the storage space allocated to an executing object instance and an accessed object instance.

43. (Previously Presented) A method of operating a small footprint device that includes a processing machine, wherein program modules are executed on the processing machine; the method comprising:

separating contexts, on said small footprint device, using a context barrier, said context barrier configured for controlling execution of at least one instruction of one of zero or more sets of instructions comprised by a program module based at least in part on whether said at least one instruction is executed for an object instance associated with a first one of said separate contexts and whether said at least one instruction is requesting access to an instance of an object definition associated with a second one of said separate contexts, wherein said separate contexts and said context barrier are included in a runtime environment on said small footprint device and further wherein said runtime environment includes an operating system where said separate contexts and said context barrier are removed from and over said operating system,

said separating further comprising:

preventing said access if said access is unauthorized; and

enabling said access if said access is authorized;

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executing groups of one or more program modules in separate contexts, said one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions, said zero or more sets of executable instructions and said zero or more data definitions grouped as object definitions, each context comprising a protected object instance space such that at least one of said object definitions is instantiated in association with a particular context; and

permitting direct access to information from one program module, in one of said separate contexts, by another program module, in another of said separate contexts, across said context barrier using an entry point object wherein said entry point object is in said runtime environment and is removed from and over said operating system.

44. (Previously Presented) The method of claim 43 wherein an object instance is associated with a context by recording the name of said context in a header of said object instance, information in said header inaccessible to said one or more program modules.

45. (Previously Presented) The method of claim 43 wherein said controlling execution is based at least in part on object header data comprising information associated with at least one of said instances of objects.

46. (Previously Presented) The method of claim 43 wherein

a memory of said small footprint device is partitioned into a plurality of memory spaces with instances of objects allocated for storage in one of said plurality of storage spaces; and

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said controlling execution is based at least in part on determining the storage space allocated to an executing object instance and an accessed object instance.

47. (Previously Presented) A method of permitting access to information on a small footprint device from a first program module to a second program module separated by a context barrier, said small footprint device comprising:

at least one processing element, on the small footprint device, configured to execute groups of one or more program modules in separate contexts, said one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions, said zero or more sets of executable instructions and said zero or more data definitions grouped as object definitions, each context comprising a protected object instance space such that at least one of said object definitions is instantiated in association with a particular context wherein said separate contexts are included in a runtime environment on the small footprint device and further wherein said runtime environment includes an operating system where said separate contexts are removed from and over said operating system;

a memory, on said small footprint device, comprising instances of objects; and

a context barrier, in said runtime environment and removed from and over said operating system, for separating and isolating said contexts, said context barrier configured for controlling execution of at least one instruction of one of said zero or more sets of instructions comprised by a program module based at least in part on whether said at least one instruction is executed for an object instance associated with a first

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one of said separate contexts and whether said at least one instruction is requesting access to an instance of an object definition associated with a second one of said separate contexts, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized, the method comprising:

creating an entry point object, in said runtime environment and removed from and over said operating system, which may be accessed by at least two program modules; and

using said entry point object to permit direct access to information from one program module of said at least two program modules, in one of said separate contexts, by an other program module of said at least two program modules, in another of said separate contexts, across said context barrier.

48. (Previously Presented) The method of claim 47 wherein an object instance is associated with a context by recording the name of said context in a header of said object instance, information in said header inaccessible to said one or more program modules.

49. (Previously Presented) The method of claim 47 wherein said controlling execution is based at least in part on object header data comprising information associated with at least one of said instances of objects.

50. (Previously Presented) The method of claim 47 wherein

a memory of said small footprint device is partitioned into a plurality of memory spaces with

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instances of objects allocated for storage in one of said plurality of storage spaces; and

said controlling execution is based at least in part on determining the storage space allocated to an executing object instance and an accessed object instance.

51. (Previously Presented) A computer program product, comprising:

a memory storage medium; and

a computer controlling element comprising instructions for implementing a context barrier on a small footprint device and for bypassing said context barrier using an entry point object to permit direct access to information from one program module, in one context, by another program module, in a different separate context, wherein said context barrier and said entry point object are included in a runtime environment on the small footprint device and further wherein said runtime environment includes an operating system where said context barrier and said entry point are removed from and over said operating system, said small footprint device comprising:

at least one processing element, on said small footprint device, configured to execute groups of one or more program modules in separate contexts, said one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions, said zero or more sets of executable instructions and said zero or more data definitions grouped as object definitions, each context comprising a protected object instance space such that at least one of said object definitions is instantiated in association with a particular context where said separate contexts are

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included in said runtime environment and are removed from and over said operating system;

a memory, on the small footprint device, comprising instances of objects; and

a context barrier for separating and isolating said contexts, said context barrier configured for controlling execution of at least one instruction of one of said zero or more sets of instructions comprised by a program module based at least in part on whether said at least one instruction is executed for an object instance associated with a first one of said separate contexts and whether said at least one instruction is requesting access to an instance of an object definition associated with a second one of said separate contexts, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized.

52. (Cancelled)

53. (Previously Presented) A computer program product, comprising:

a memory storage medium; and

a computer controlling element comprising instructions for separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one program to access information from another program by bypassing a context barrier using an entry point object to permit direct access to information from one program, in one context, by another program in a different separate context, wherein said context barrier and said entry point object are included in a runtime environment on the small footprint

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device and further wherein said runtime environment includes an operating system where said context barrier and said entry point are removed from and over said operating system, said small footprint device comprising:

at least one processing element, on said small footprint device, configured to execute groups of one or more program modules in separate contexts, said one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions, said zero or more sets of executable instructions and said zero or more data definitions grouped as object definitions, each context comprising a protected object instance space such that at least one of said object definitions is instantiated in association with a particular context where said separate contexts are included in said runtime environment and are removed from and over said operating system;

a memory, on the small footprint device, comprising instances of objects; and

a context barrier for separating and isolating said contexts, said context barrier configured for controlling execution of at least one instruction of one of said zero or more sets of instructions comprised by a program module based at least in part on whether said at least one instruction is executed for an object instance associated with a first one of said separate contexts and whether said at least one instruction is requesting access to an instance of an object definition associated with a second one of said separate contexts, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized.

54. (Cancelled)

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55. (Cancelled)

56. (Cancelled)

57. (Previously Presented) A method of transmitting code over a network, comprising transmitting a block of code from a server, said block of code comprising instructions for implementing an entry point object for bypassing a context barrier on a small footprint device over a communications link, wherein said context barrier and said entry point object are included in a runtime environment and further wherein said runtime environment includes an operating system where said context barrier and said entry point are removed from and over said operating system and further wherein said entry point object permits direct access to information from one program module, in one context, by another program module in another different context, said small footprint device comprising:

at least one processing element, on the small footprint device, configured to execute groups of one or more program modules in separate contexts, said one or more program modules comprising zero or more sets of executable instructions and zero or more sets of data definitions, said zero or more sets of executable instructions and said zero or more data definitions grouped as object definitions, each context comprising a protected object instance space such that at least one of said object definitions is instantiated in association with a particular context where said separate contexts are included in said runtime environment, on the small footprint device, and are removed from and over said operating system;

a memory, on the small footprint device, comprising instances of objects; and

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a context barrier for separating and isolating said contexts, said context barrier configured for controlling execution of at least one instruction of one of said zero or more sets of instructions comprised by a program module based at least in part on whether said at least one instruction is executed for an object instance associated with a first one of said separate contexts and whether said at least one instruction is requesting access to an instance of an object definition associated with a second one of said separate contexts, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized.

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EVIDENCE APPENDIX

None

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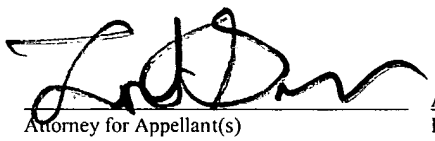
RELATED PROCEEDINGS APPENDIX

None

CERTIFICATE OF MAILING

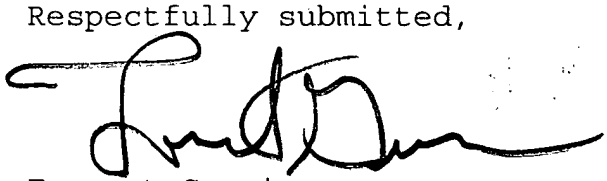
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 1, 2009.



Attorney for Appellant(s)

April 1, 2009
Date of Signature

Respectfully submitted,



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